DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009202 Address: 333 Burma Road **Date Inspected:** 25-Sep-2009

City: Oakland, CA 94607

OSM Arrival Time: 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Xu Yumin and Li Jia **CWI Present:** Yes No **Inspected CWI report:** Yes No **Rod Oven in Use:** Yes No N/A N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

This QA Inspector performed MT of approximately 15% of repair areas previously tested and accepted by Quality Control personnel. This QA Inspector generated an MT report for this date. The member(s) is/are identified as OBG 1E. The weld designations reviewed are as follows:

Repair areas at Panel Point 12.5 and 1AE & 1BE weld splice hold back welds on stiffeners

- 1. BP310-001-038, 042, 044
- 2. BP312-001-038
- 3. BP314-001-034, 040
- 4. SP648-001-034, 035
- 5. SP652-001-032, 033
- 6. SP394-001-044, 045

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1AAW & 1AW

SMAW welding of weld joint 001 located on OBW1.

Welder is identified as Mr. Zang Feng (049769). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair and repair procedure CWR774.

SMAW welding of various excavation areas on weld joint 001 located on OBE1A..

Welder is identified as Mr. Bi Shijian (068764). ZPMC QC is identified as Li Jia.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair and repair procedure CWR774 and WR7649.

SMAW welding of various excavation areas on weld joint 001 located on OBE1.

Welder is identified as Mr. Chen Zheng Hua (220067). ZPMC QC is identified as Li Jia.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair and repair procedure CWR774 and WR7649.

1AAE & 1AE

SMAW welding of various excavation areas on weld joint 001 located on OBE1.

Welder is identified as Mr. Yun Chengxian (045138). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair and repair procedure WR7834.

SMAW welding of various excavation areas on weld joint 001 located on OBE1.

Welder is identified as Mr. Zhang Yanbo (045194). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair and repair procedure WR7834.

BK1A

SMAW welding of weld joints 053, 056, 005 and 007 located on BK1.

Welder is identified as Mr. Li Guimin (220066). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Repair and repair procedure WR7677.

1AAE & 1AE

SMAW base metal repair welding on weld joints 007 and 006 located on OBE5A.

Welder is identified as Mr. Chen Zhenghua (220067). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1.

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NDT Observation

This QA Inspector observed ZPMC Ultra Sonic (UT) Technician performing UT on various locations in the trial assembly yard. Locations are as followed:

1. UT was performed on 1AW and 1BW repaired areas by ZPMC with a 70° transducer. Areas inspected on today's work shift have been previously accepted (UT) on 09-08-09 by ZPMC. 3 areas were reported to be acceptable and 1 non acceptable by ZPMC. Y locations and welds are as followed: Measurements were pulled from crossbeam edge of segment.

OBW1-007-580mm (rejected) OBW1-006- 4330mm (accepted) OBW1-006-5500mm (accepted) OBW1-005-33,280mm (accepted)

Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

1. Grit blasting of various internal areas in segment 4W.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (134-8257-0045), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz,Joe	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer